UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

April 16, 2004

Charles Keene
California Department of Water Resources
770 Fairmont Avenue
Glendale, CA 91203

Subject: Scoping comments for the Restoration of the Salton Sea Ecosystem and Preservation of Its Fish and Wildlife Resources, Riverside and Imperial Counties, California

Dear Mr. Keene:

The U.S. Environmental Protection Agency (EPA) has reviewed the Notice of Preparation (NOP) published March 2004, requesting comments on the scope and content of the Programmatic Environmental Impact Report (PEIR) to be prepared by the California Department of Water Resources (DWR) and the California Department of Fish and Game (DFG) for the above project.

EPA has participated in the efforts to restore the Salton Sea since 1998. We provide advice on how to minimize potential air quality and water quality effects; work with the State in development of Total Maximum Daily Loads for selenium, nutrients and pesticides in the Salton Sea, New, Alamo and Whitewater Rivers and agricultural drains; manage the Special Acts appropriation grant awarded to the Salton Sea Authority in support of their Salton Sea Restoration Feasibility study; engage in the Salton Sea Authority=s Science Subcommittee; and participate as an ex officio member of the Salton Sea Advisory Committee. EPA also has a Tribal Trust responsibility to work with the Tribes in protecting the environment on their lands.

Although the current restoration effort is a non-Federal action, we are providing comments on the NOP because restoration of the Salton Sea is interrelated with other Federal actions and environmental issues in which EPA is involved. Our goal is to ensure full disclosure of critical issues, proposed actions, and potential impacts; and to provide assistance in minimizing adverse environmental effects.

As stated in the NOP, Salton Sea restoration efforts have been underway since 1992 and are linked to many other State and Federal actions. We strongly urge DWR and DFG to evaluate the restoration feasibility study, restoration alternatives, scientific, and policy work completed by the Salton Sea Authority, U.S. Bureau of Reclamation, University of Redlands, Pacific Institute, and U.S. Filter, and integrate appropriate findings into the current restoration effort. A clear

description of the purpose and need, the project objectives, and their scope will be critical given the complexity, high visibility, and controversy surrounding the management of the Salton Sea.

Issues of interest to EPA include: (1) air quality impacts and mitigation/data collection options; (2) water resources; (3) consultation with Indian Tribes; (4) geographic scope and binational cooperation; (5) baseline environmental conditions; (6) alternatives analysis; and (7) cumulative impacts. Our comments on the Quantification Settlement Agreement, Imperial Irrigation District/San Diego County Water Authority Water Transfer, Bureau of Reclamation (BOR) Implementation Agreement, and BOR Salton Sea Restoration Project are incorporated by reference. If you would like a copy of these comments, please call Laura Fujii at (415) 972-3852.

We appreciate the opportunity to provide comments on the preparation of the PEIR, and look forward to continued participation in this process. When the Draft PEIR is released for public review, please send three copies to the address above (mail code: CMD-2). If you have any questions, please contact me or Laura Fujii, the lead reviewer for this project. Laura can be reached at 415-972-3852 or fujii.laura@epa.gov.

Sincerely,

/s/ by Laura Fujii, Acting for

Lisa B. Hanf, Manager
Federal Activities Office
Cross Media Division

cc: Mike Walker, Bureau of Reclamation
James J. Fletcher, Bureau of Indian Affairs
Carol Roberts, US Fish and Wildlife Service
Charles Fisher, US International Boundary and Water Commission
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Augustine Band of Mission Indians
Agua Caliente Band of Cahuilla Indians

Air Quality

1. Implementation of the QSA could result in exposure of approximately 60,000 acres (94 square miles) of land currently inundated by the Salton Sea[1]. The crust formed on exposed sediments may breakup under natural events similar to the Owens dry lake bed in California. These natural events could come from ground water evaporation, surface moisture, or rain. Human disturbances associated with off-road vehicle traffic (dune buggies, all-terrain vehicles, and dirt bikes) as well as hunting, fishing, boat launching activities and foot traffic could fracture the crust. These events can cause the surface to crack and, when exposed to wind, will contribute to particulate matter less than 10 microns in diameter (PM10) emissions. The Coachella Valley is classified under the Federal Clean Air Act as being a Aserious@ non-attainment area for PM10. Imperial County is classified as a Amoderate@ non-attainment area for PM10.

Recommendations:

The Programmatic Environmental Impact Report (PEIR) should determine the durability and sustainability of crust formations on the exposed Salton Sea shoreline, and address variations associated with weather patterns and human disturbance.

We recommend that the PEIR include a description of the composition of the sediments and the risk of adverse human health and environmental effects if this sediment becomes airborne. If specific data is not available, the PEIR should identify necessary research and data needs.

The PEIR should evaluate possible control measures for the newly exposed shoreline. Control measures could include, but are not limited to, the introduction of native plants to provide ground cover, use of conserved water to reduce emissions, and control of public access to certain areas of the shoreline.

A PM10 monitoring network should be established around the Salton Sea as soon as possible to determine baseline emissions and PM10 exceedances of the National Ambient Air Quality Standards (NAAQS) under the proposed project.

The development of a Salton Sea monitoring and mitigation plan should be coordinated with the South Coast Air Quality Management District and Imperial County Air Pollution Control District.

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[1]Wastewater Conveyance & Treatment Project for The Mexicali II Service Area Environmental Assessment, Response to Comments, December 2003, US EPA.

2. The Draft PEIR should provide a detailed discussion of air quality standards, ambient conditions, and potential air quality impacts for the Salton Sea area. Cumulative and indirect impacts should be fully evaluated. For instance, development or modified use of surrounding lands (e.g., recreational development, retirement developments) could generate significant sources of PM10, smoke, and vehicle emissions.

Water Resources

Water Quality

The concentration of selenium in many locations of the New and Alamo Rivers and IID agricultural drains, exceeds EPA=s aquatic life criteria of 5 micrograms per liter (µg/l) (Draft PEIR Colorado River Quantification Settlement Agreement (QSA), pgs. 3.1-10, 3.1-11; Table 3.1-15, pg. 3.1-29). In addition, we are concerned with the potential for increased concentrations of perchlorate, boron, nutrients, pesticides, sediments, metals, and total dissolved solids in surface waters. An increase in water temperatures is also a concern since it may have adverse effects on an already stressed biological system. Our concern is heightened by the presence of fish-eating migratory birds and other threatened and endangered fish and wildlife species that could be adversely affected by these harmful constituents, and by the bioaccumulation of selenium up the food chain.

Recommendations:

The PEIR should address the potential impacts of water temperature and constituent concentrations (e.g., perchlorate, boron, pesticides, nutrients, sediments, metals, and total dissolved solids) related to the reduced volume of drainage water flowing into the New, Alamo, and Whitewater Rivers and the Salton Sea. Many of these constituents, such as perchlorate, can have serious adverse effects on human health and the environment. The PEIR should also provide an evaluation of the cumulative effects of possible increased concentrations of these constituents of concern.

The PEIR should identify mitigation measures to address the potential adverse increase in concentration of constituents of concern such as selenium. Potential mitigation measures include biological and chemical selenium removal; integrated drainage management; desalination; evaporation ponds; deep well injection of extremely poor drainwater; and beneficial uses of drain water and salts.

The Regional Water Quality Control Board is developing Total Maximum Daily Loads (TMDLs) for selenium, nutrients and pesticides in the Salton Sea, New, Alamo and Whitewater Rivers and agricultural drains. We encourage DWR and DFG to work with the Regional Water Quality Control Board, EPA and local Indian tribes as they develop and implement TMDLs and other measures to address water quality problems. The PEIR should assess the conformity of

proposed restoration actions with probable TMDLs requirements and water quality goals.

Wetlands: Section 404 of the Clean Water Act (CWA)

1. The PEIR should identify impacts to water, floodplains, and wetlands, including identification of Section 404 Clean Water Act (CWA) requirements, and management and mitigation proposals to ensure compliance with these requirements.

EPA will review the proposed action for compliance with the Federal Guidelines for Specification of Disposal Sites for Dredged or Fill Materials (40 CFR 230), promulgated pursuant to Section 404(b)(1) of the Clean Water Act (CWA). To comply with the Guidelines, the proposed actions must meet all of the following criteria:

- There is no practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem (40 CFR 230.10(a)).

- The proposed action does not violate State water quality standards, toxic effluent standards, or jeopardize the continued existence of federally listed species or their critical habitat (40 CFR 230.10(b)).

- The proposed action will not cause or contribute to significant degradation of waters of the United States, including wetlands (40 CFR 230.10(c)). Significant degradation includes loss of fish and wildlife habitat, including cumulative losses.

- All appropriate and practicable steps are taken to minimize adverse impacts on the aquatic ecosystem (i.e., mitigation) (40 CFR 230.10(d)). This includes incorporation of all appropriate and practicable compensation measures for unavoidable losses to waters of the United States, including wetlands. The DEIS should fully address the feasibility of "in-kind" habitat mitigation measures.

2. As stated in the NOP, local agencies and environmental groups have constructed pilot wetlands along the New and Alamo Rivers.

Recommendation:

The PEIR should describe the constructed wetland project and evaluate the potential use of constructed wetland efforts to improve water quality and provide wildlife habitat. The possible tradeoff between the reduction of Salton Sea inflow due to increased wetland water use and habitat creation benefits should be evaluated.

Coordination with Indian Tribes

We strongly recommend DWR and DFG meet and work with potentially affected Indian Tribes. At a minimum, the following Indian Tribes should be notified and encouraged to participate in the planning process: Torres Martinez Desert Cahuilla Indians, Morongo Consortium of Coachella Valley Tribes, The Morongo Band of Mission Indians, Agua Caliente Band of Cahuilla Indians, Twenty Nine Palms Band of Mission Indians, Augustine Band of Mission Indians and the Cabazon Band of Mission Indians. Many of these Tribes have a direct interest in the water supply, water quality and water use in this region. For instance, the Torres Martinez are in the process of establishing Water Quality Standards for the Salton Sea watershed and the Morongo Consortium has received a Section 319 Clean Water Act pass-through grant via the State of California for water quality monitoring of the area, including the Salton Sea. It is important that potentially affected Indian Tribes be consulted on a government-to-government basis in regard to the potential effects of the proposed actions.

Geographic Scope and Binational Cooperation

In addition to the Salton Sea, the study area should include those water bodies that effect the Sea, including the New River, Alamo River, Whitewater River, San Felipe Creek, agricultural drains, the Colorado River, and the Colorado River Delta (Delta). We are pleased that the geographic scope of the project now includes the Lower Colorado River and Delta. The restoration of the Salton Sea should carefully consider the interrelationships among major water resources within the Lower Colorado River watershed.

We recommend DWR and DFG approach the International Boundary and Water Commission (IBWC) to seek opportunities for binational cooperation and coordination on potential Lower Colorado River and Delta restoration alternatives. As noted in the NOP, remediating conditions in the Colorado River Delta will require binational cooperation. The outcome of the restoration project would be much more positive if both Mexico and the United States collaborated from the beginning of the planning process.

Baseline Conditions

1. The PEIR should clearly describe the existing conditions and historical conditions from pre-flooding to pre-tilapia fish and post-tilapia fish introduction.

2. The PEIR should clearly state which baseline will be used to evaluate the potential impacts of the alternatives. It is possible to have different baselines depending on the project objective, resource, and issues being evaluated. However, the baseline should be clearly defined and scientifically credible. We recommend proposed baselines be reviewed by the Salton Sea Advisory Committee and other key affected parties.

3. The baseline evaluation should include a water budget for the Salton Sea, New River, Alamo River, and the Colorado River, including the Delta.

Alternatives Analysis

1. Specific alternative selection/screening criteria should be described in the PEIR. Provide the rational for the elimination of alternatives not evaluated in detail. Below is a list of management and structural options from our previous scoping comments and other feasibility studies for restoration of the Salton Sea that could be considered.

Management Alternatives

- Water supply allocations
- Water transfers for water for the Salton Sea
- Non-point source pollution control
- Modified agricultural practices, such as reduction of fertilizer and pesticide use, crop modification, land retirement, drainage water treatment (e.g., wetlands), water conservation.
- Develop and implement a dynamic model for the Lower Colorado River Basin, including the Salton Sea, to mimic the natural cycle.
- Remediation/restoration projects in the Lower Colorado River and Delta

Structural Alternatives

- Dikes or causeways
- Export/import actions (e.g., pumping water in and out of the Sea)
- Impoundments and pump out
- Salt removal (e.g., evaporation ponds, enhanced evaporation systems)
- Wastewater treatment facility
- Desalination facility

2. We recommend an alternative be developed based upon a dynamic restoration and management model for the Lower Colorado River Basin which mimics the natural ecological cycle of the Salton Sea, Lower Colorado River, and Delta. Such an alternative could include some or all of the following features concurrently or in stages:

a) Periodic refreshment of the Salton Sea with fresh water to reduce the salinity range.
b) Delivery of Colorado River surplus or flood water to the Delta wetlands for restoration of native and migratory bird and other endemic species habitat.
c) Removal of tilapia species/reintroduction of Gulf of California fish species OR allowing the Salton Sea to reach a salinity in which the system is dominated by invertebrates.
d) Invertebrate (brine shrimp) harvesting.
e) On-farm management to reduce pesticide, nutrient and selenium inputs to the Salton Sea.

f) Restoration of riparian habitat along the New, Alamo, Whitewater Rivers and San Felipe Creek.
g) Restoration of halophyte-dominated wetlands around the Salton Sea shoreline.

A restoration and management scenario including these elements could reduce salinity and allow the system to change over time, thereby mimicking the natural cycle of the historical Salton Sea. It would also restore habitat over a larger area available to migratory birds along the Pacific Flyway. The costs associated with such an alternative may be lower than engineering solutions proposed thus far, and could be borne by different beneficiaries over time.

Cumulative Impacts

Given the many state and federal actions in the project area, it is important that the PEIR provide a thorough evaluation of potential cumulative impacts of the project. A cumulative impact is A...the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.@ (40 CFR ' 1508.7). For instance, restoration of the Salton Sea could accelerate the agriculture to urban conversion which is already rapidly occurring along the Border. Other third party effects such as potential impacts on geothermal resources, Indian Tribes, and farm workers should be also be analyzed.

cc:

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The Honorable Raymond Torres, Chairman, Torres-Martinez Desert Cahuilla Indians, P.O. Box 1160, Thermal, CA 92274

The Honorable Dean Mike, Spokesperson, Twenty-Nine Palms Band of Mission Indians, 46-200 Harrison Place, Coachella, CA 92236

The Honorable Maurice Lyons, Chairman, Morongo Band of Mission Indians, 11581 Potrero Road, Banning, CA 92220

The Honorable John A. James, Chairman, Cabazon Band of Mission Indians, 84-245 Indio Springs Drive, Indio, CA. 92201

The Honorable Maryann Martin, Chairperson, Augustine Band of Mission Indians, P.O. Box 846, Coachella, CA. 92236

The Honorable Richard Milanovich, Chairman, Agua Caliente Band of Cahuilla Indians, 600 East Tahquitz Canyon Way, Palm Springs, CA. 92262